

MATERIAL SAFETY DATA SHEET

THOROGARD

MSDS ID: 04471

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Revised 11/19/97
Replaces 9/22/93
Printed 1/23/98

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: THOROGARD
PRODUCT DESCRIPTOR: TREATMENT OF COOLING WATER SYSTEMS
MANUFACTURER: DUBOIS CHEMICALS
255 E. 5TH ST.
CINCINNATI, OH 45202
EMERGENCY PHONE NUMBERS: MEDICAL (COLLECT): (303)592-1024
CHEMTREC: (800)424-9300
DUBOIS (24 HOURS): (800)543-4906

II. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME (CAS NUMBER)	%	EXPOSURE LIMITS	UNITS
SODIUM NITRITE (7632-00-0)	<3	LD 50 85	MG/KG
SODIUM MOLYBDATE (7631-95-0)	<3	TLV 5; PEL 5 (AS MOLYBDENUM)	MG/M3

III. HAZARDS IDENTIFICATION

ROUTES OF ENTRY: INHALATION: NO
SKIN: NO
INGESTION: YES
SIGNS AND SYMPTOMS OF EXPOSURE:
ACUTE: MAY IRRITATE EYES
CHRONIC: SAME AS ACUTE
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
SENSITIVE SKIN

IV. FIRST AID MEASURES

EYES: FLUSH THOROUGHLY WITH FRESH WATER. GET MEDICAL ATTENTION.
SKIN: FLUSH WITH FRESH WATER, WASH WITH SOAP AND WATER. REMOVE
CONTAMINATED CLOTHES AND SHOES.
INGESTION: GIVE MILK OR WATER. INDUCE VOMITING. GET MEDICAL ATTENTION. NEVER
GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.
INHALATION: N/A IN NORMAL OPERATION.

V. FIRE FIGHTING MEASURES

FLASH POINT: NONE	DEG F	FLAME EXTENSION: N/A	IN.
FLAMMABLE LIMITS IN AIR BY VOLUME:		LEL: NONE	UEL: NONE
UNUSUAL FIRE OR EXPLOSION HAZARDS:		NONE	
EXTINGUISHING MEDIA:		CO2, FOAM, DRY CHEMICALS	
FIRE FIGHTING INSTRUCTIONS:		NONE	

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VI. ACCIDENTAL RELEASE MEASURES

IF MATERIAL IS RELEASED OR SPILLED: FLUSH SMALL AMOUNTS TO DRAIN. COLLECT AND RETURN LARGE AMOUNTS TO CONTAINER.

VII. HANDLING AND STORAGE

HANDLING AND STORAGE PRECAUTIONS: DO NOT PRESSURE CONTAINER TO EMPTY. KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP FROM FREEZING. IF FROZEN, THAW AND MIX TO MAKE USABLE. WASH HANDS THOROUGHLY AFTER HANDLING PRODUCT.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE/FACE PROTECTION: FACE SHIELD WHEN HANDLING
PROTECTIVE GLOVES: NON-ABSORBENT
RESPIRATORY PROTECTION: NONE
OTHER PROTECTIVE CLOTHING/EQUIPMENT: NONE
EXPOSURE GUIDELINES: SEE SECTION II FOR DETAILED INFORMATION.

IX. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (F): 210 SPECIFIC GRAVITY: 1.0470
VOLATILE BY VOLUME: 90 SOLUBILITY IN WATER: 100
VAPOR PRESSURE (MMHG): 17.5 AT 20 C
APPEARANCE AND ODOR: YELLOW-BROWN LIQUID; MILD ODOR

X. STABILITY AND REACTIVITY

CHEMICAL STABILITY: STABLE
INCOMPATIBILITY WITH OTHER MATERIALS: CONCENTRATED MINERAL ACIDS
HAZARDOUS DECOMPOSITION PRODUCTS: OXIDES OF NITROGEN WITH INCOMPLETE COMBUSTION
HAZARDOUS POLYMERIZATION: NONE

XI. TOXICOLOGICAL INFORMATION

NO DATA AVAILABLE

XII. ECOLOGICAL INFORMATION

NO DATA AVAILABLE

XIII. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: PH ADJUSTMENT; SEPARATION OF INSOLUBLES; NO PHOSPHATES. USE UNTIL LESS THAN ONE INCH REMAINS IN CONTAINER, EMPTY CONTAINER. TRIPLE RINSE WITH WATER, ADD TO OPERATION. REMOVE OR DEFACE LABEL BEFORE SELLING CONTAINER OR DISPOSAL.

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XIV. TRANSPORT INFORMATION

HAZARDOUS MATERIALS DESCRIPTION/PROPER SHIPPING NAME:
D.O.T. CLASS: NOT REGULATED

XV. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

CERCLA/EPCRA:SECTION 313 TOXIC CHEMICALS:

NONE

LISTED CARCINOGEN: NONE

NTP: NO

IARC: NO

OSHA: NO

HMIS RATINGS: HEALTH: 1 FIRE: 0 REACTIVITY: 0

PERSONAL PROTECTIVE EQUIPMENT: B

STATE RIGHT-TO-KNOW INFORMATION:

SODIUM MOLYBDATE - CAS #7631-95-0

SODIUM NITRITE - CAS #7632-00-0

WATER - CAS #7732-18-5

XVI. OTHER INFORMATION

THE INFORMATION IN THIS MSDS RELATES TO THIS SPECIFIC MATERIAL. IT MAY NOT BE VALID FOR THIS MATERIAL IF USED OTHER THAN AS RECOMMENDED BY DUBOIS CHEMICALS OR IN COMBINATION WITH OTHER MATERIALS. IT IS THE USER'S RESPONSIBILITY TO EVALUATE THE APPLICABILITY OF THIS INFORMATION FOR HIS PARTICULAR CONDITIONS OF STORAGE, HANDLING AND USE.